

ABSTRACT OF THE INVENTION

An integrated oscillator that may be used as a time clock includes circuitry that oscillates about an RC time constant, which RC time constant is adjustable to provide a desired frequency of oscillation. More specifically, the oscillator includes a capacitor array that has a plurality of capacitors coupled in parallel wherein each capacitor may be selectively included into the RC time constant or selectively excluded there from. Rather than setting the capacitance values to a desired capacitance value, a system for adjusting the time constant includes circuitry for measuring an output frequency and for comparing that to a certified frequency source wherein the time constant is adjusted by adding or removing capacitors from the capacitor array until the frequency of the internal clock matches an expected frequency.